



AECL Procurement Process, Capabilities and Supplier Qualifications

Kumar Beri

Manager, Corporate Procurement QA

Canada 





Content & Objective of Presentation

- **Codes & Standards**
- **Procurement Documentation**
- **Procurement Organization**
- **Procurement Process**
- **Supplier Qualifications**
- **Pressure – Retaining Components**



Codes, Standards and QA Certifications

AECL

- **Procurement:** - CSA N286.1 “Procurement QA for NPP.”
 - ISO 9001:2000 “Quality Management System – Requirements.”
- **Manufacturing:** - CSA N285.0 “Requirements for Pressure Retaining Systems and Components in CANDU N.P.P.”
 - ISO 9001:2000

Suppliers

- **CSA Z299 or ISO 9001:2000**
- **CSA N285.0: Nuclear Pressure Retaining Components (PRC)**
- **ASME Section III : Nuclear Pressure Retaining Components (PRC)**
- **NCA-3800: Nuclear Pressure Retaining Materials**
- **NCA-4000/NQA-1: Nuclear PRC**
- **CSA B51: Non-Nuclear PRC**
- **Section VIII App. 10: Non Nuclear Pressure Vessels**

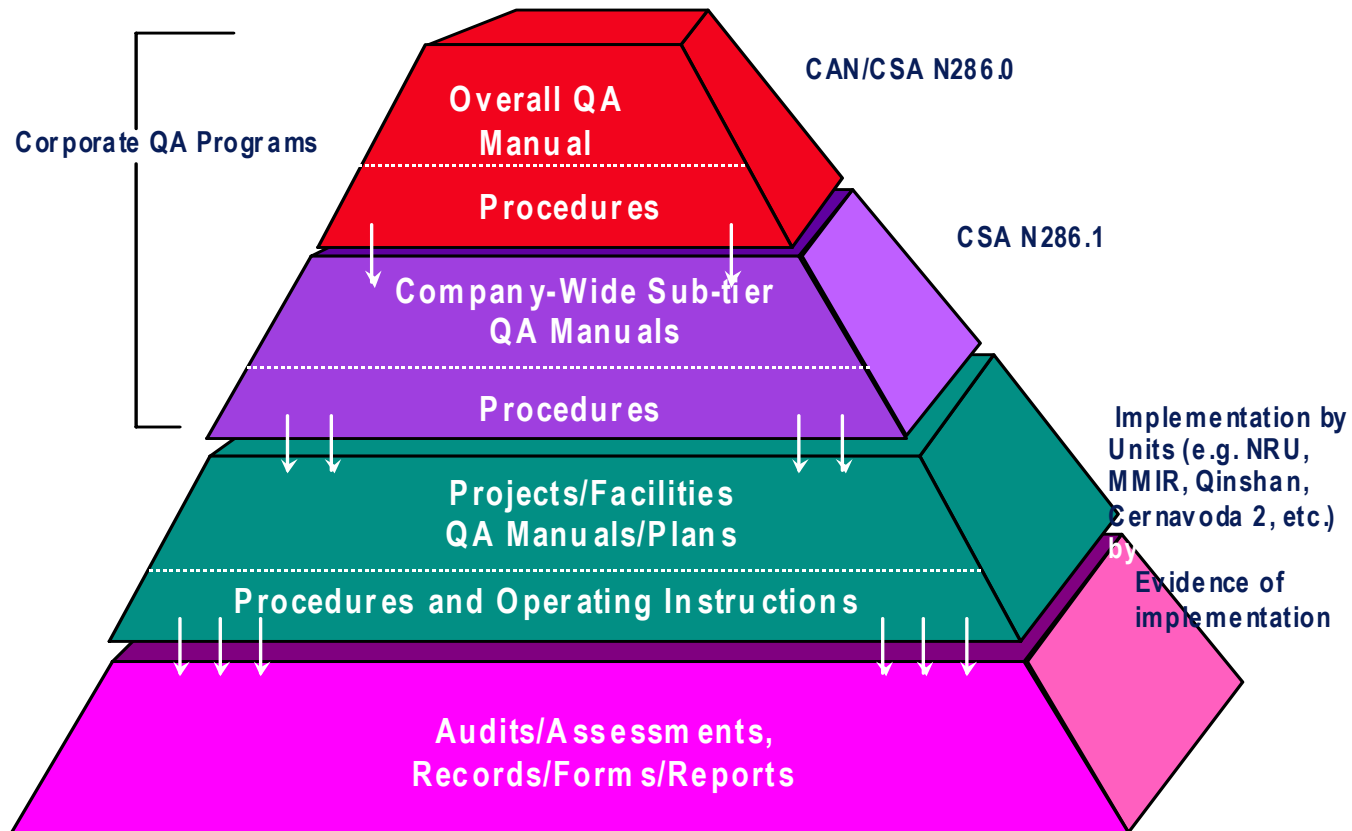


QA Documentation

- **Company Wide Procurement QA Manual**
- **Project Procurement QA Plans**
- **Procedures & Forms**
- **Records**



Hierarchy of AECL QA Documents



Hierarchy of AECL QA Documentation



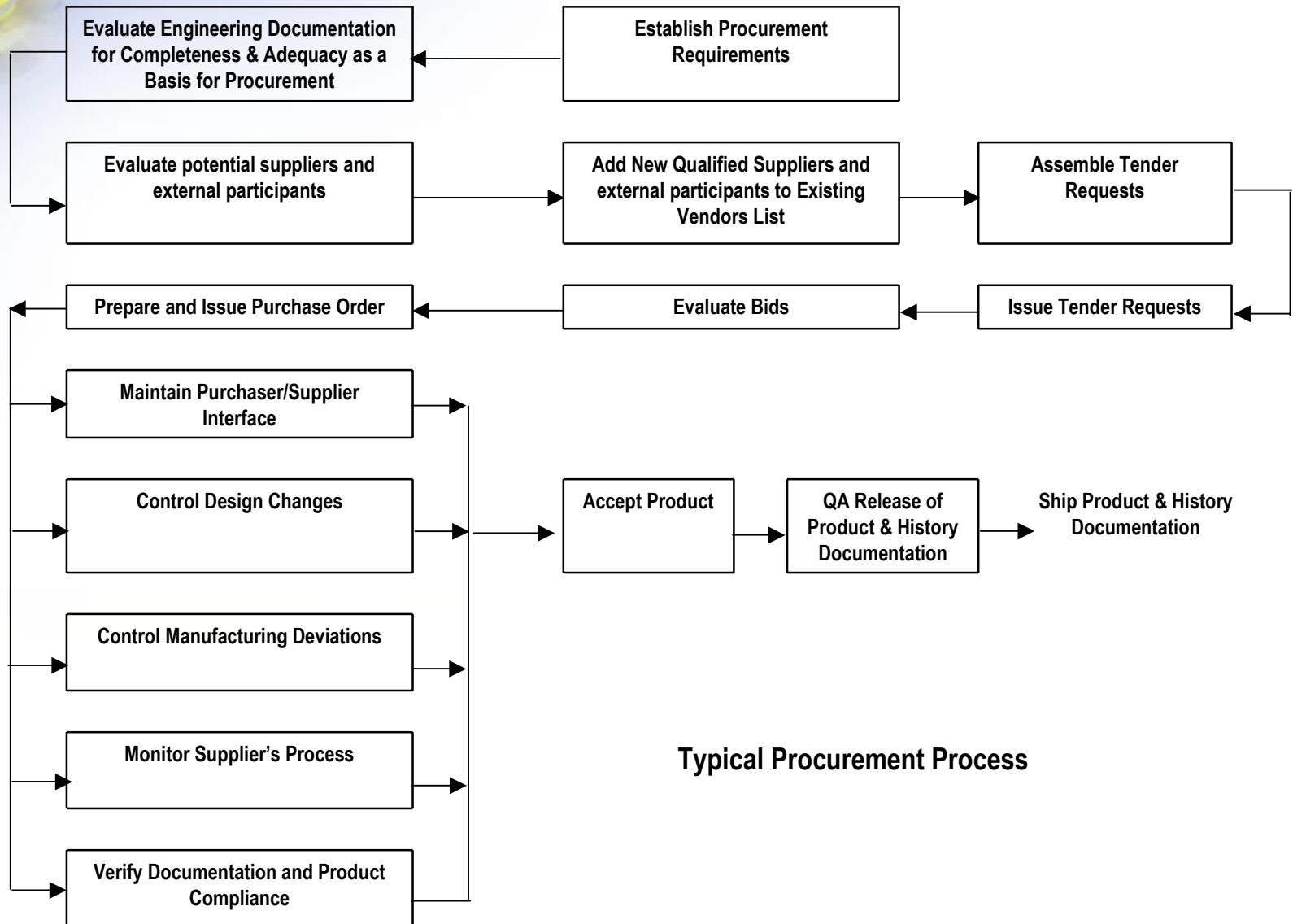
Procurement Process

- **Establish Requirements**
- **Prepare Procurement Documents**
- **Evaluation, Selection and Qualification of Suppliers**
- **Transfer Requirements to Suppliers**
- **Monitor Performance of Suppliers**
- **Control of Purchased Items and Services**
- **Acceptance and Release of Items and Services**
- **Records and Reports**

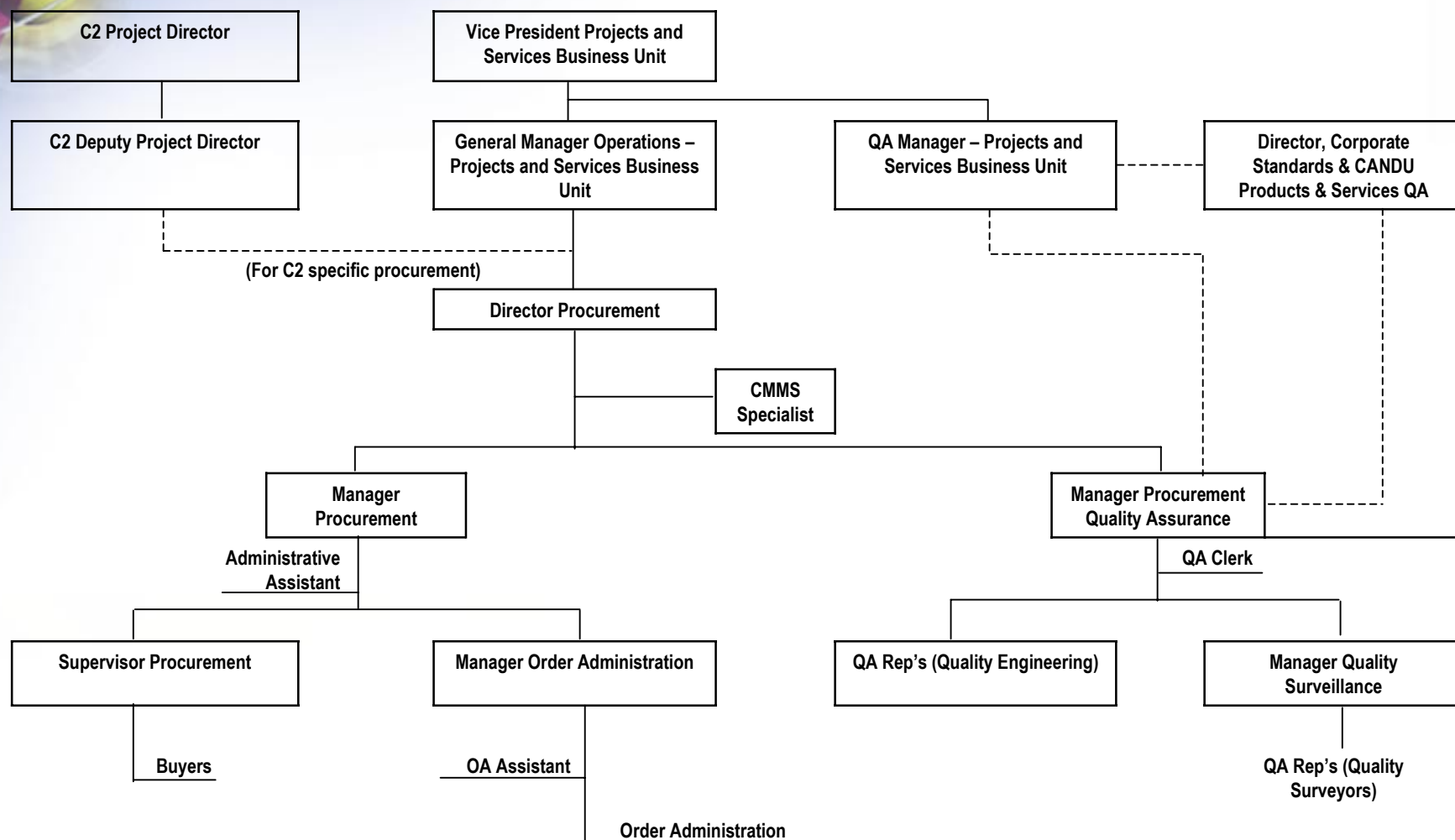


Procurement Process

- **Organize**
- **Plan**
- **Perform**
- **Verify and Monitor**
- **Correct and Improve**



Typical Procurement Process



**Typical Project Procurement Organization
Cernavoda 2 (C2) Project**



Engineering Quotation Request (EQR) Process

- **Equipment Engineering Prepares EQR**
 - CMMS Item List (Bill of Material)
 - Technical & QA Requirements
 - Procedures & Documents Checklist
- **QA Review and Sign Off**
- **Buyer Receives and Process EQR Documentation**
- **Prepare Tender Documents (T.D.)**



Tendering and P.O. Process

- **Preparation of T.D.**
- **Preparation & Review of Bid List**
- **Bid Reviews(Technical, QA, Commercial)**
- **Contract Negotiations**
- **Preparation of Recommendation & Authorization to Purchase (RAP)**
- **Preparation and Issue of P.O.**
- **Establish Post Order Team and Correspondence Procedure**



Post Order Administration

- **Initial contract review meeting. Ensure supplier and all team members understand requirements.**
- **Submission, review and acceptance of suppliers plans, procedures, reports, drawings.**
- **Monitor manufacturing programs.**
- **Resolve issues.**
- **Close out P.O.**



Quality Engineering & Quality Surveillance

- **Review of EQR, T.D., Bids, P.O.**
- **Supplier qualifications.**
- **Review and acceptance of suppliers ITP and procedures.**
- **QS planning.**
- **Monitoring of supplier performance to technical and QA requirements.**
- **Witnessing of inspections, and tests, packaging and marking.**
- **Final inspections.**
- **QA Release products and documents.**
- **Perform self assessments.**



Control of Nonconformance, Continuous Improvements

- **Nonconformance and Corrective Actions Process.**
- **DDR process (Control of deviations requested by supplier).**
- **Monitor performance to quality, delivery and cost/budget requirements.**
- **Continuous improvement.**



Supplier Qualifications & Capabilities Pressure – Retaining Components

- **Jurisdictional Certificates and Registrations**
 - CSA N285.0, CSA B51
 - ASME (QSC, N, NPT, NV, U as applicable)
- **Qualified Welders: ASME Section IX**
- **Qualified Weld Procedures: ASME Section IX**
- **Qualified NDE Personnel**
 - CGSB
 - ASNT
- **Competent Certified Professional Engineers**
- **Qualified Auditors**
- **Qualified Inspection and Test Personnel**
- **Agreement/Arrangements with Authorized Inspection Agencies**



Jurisdictional Requirements (PRC)

- **Equipment Manufactured in Canada : CSA N285.0
CSA B51**
- **Equipment Manufactured in USA : ASME**
- **Equipment Manufactured Elsewhere : ASME/CSA**



Jurisdictional Requirements

CSA N285.0

- **Design Registrations**
- **Weld Procedure Registrations (ASME Section IX)**
- **Welder Qualifications (ASME Section IX)**
- **NDE Personnel Qualifications (CGSB)**
- **QA Program Qualifications**
 - NCA-3800: Material Suppliers/Manufacturers**
 - NCA-4000: Component/Part Manufacturers**
- **Authorized Inspections**
- **Pressure Test**
- **Identifications and Name Plates**
- **Code Data Reports**
- **History Dockets (Permanent Records)**

